DOCUMENT RESUME

ED 428 548 FL 025 735

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TITLE Exploring the Comprehension Strategies of EFL Readers: A Multi-Method Study.
PUB DATE 1999-02-00
NOTE 19p.; Version of a paper presented at an International Workshop on Written Language Processing at the University of New South Wales (Sydney, Australia, December 9, 1998).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *English (Second Language); Foreign Countries; Higher Education; Interviews; *Language Processing; Protocol Analysis; *Reading Comprehension; Reading Skills; *Reading Strategies; Second Language Learning; Student Teachers; Teacher Education
IDENTIFIERS Indonesia

ABSTRACT

A study investigated the strategies used by learners of English as a foreign language (EFL) to comprehend texts written in English. Subjects were 15 student teachers enrolled at a state university in Indonesia. Data were gathered using think-aloud tasks, retellings, a reading comprehension test, in-depth interviews, and casual observation. Two students' strategy profiles are presented here, including the text used and points at which the students were asked to think aloud, data on the occurrence of specific strategies used by each student, excerpts from the protocols (in Indonesian), and discussion of the findings. It is concluded that while both students were considered above-average readers, the strategies they used showed both similarities and differences. Both used a high proportion of paraphrasing and inferring strategies. The students appeared to use differential monitoring processes, text evaluation, exemplification, and approaches to understanding text construction. Observations are made about the utility of the different types of data gathering (retellings, comprehension test, interviews, observations) in addition to the think-aloud protocol. Contains 20 references. (MSE)

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# Exploring the Comprehension Strategies of EFL Readers:
## A multi-method study

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FL025735

**February 1999**

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## *Abstract*

*The study reflected in this paper aims at providing a detailed description of the strategies used by English as a foreign language (EFL) readers in comprehending texts written in English. As studying comprehension strategies involves complex issues, a multi-method approach is required, not only for breadth of coverage, but also to allow for a check on the validity of individual methods. To achieve the goal of the study, think-aloud tasks, retellings, a reading comprehension test, in-depth interviews and casual observations were employed to explore the strategies used by fifteen student-teachers of a state university in Indonesia in comprehending texts written in English. An analysis of the coded transcripts of the recorded data indicates that the readers in this study share characteristics of both poor and good native readers.*

## INTRODUCTION

Effective reading is the most important avenue to effective learning as reading is so interrelated with the total educational process that educational success requires successful reading (Dechant, 1991:vii). Despite the intention to place the greatest emphasis on the development of reading skills in the teaching of English as a foreign language in Indonesia (Departemen Pendidikan dan Kebudayaan R. I., 1993:18), the methods employed seem to fail to promote the learners' independent reading ability (Djiwandono, 1993:49) as most classroom activities engage the teachers in testing the students' comprehension. The teachers' activities, which are mostly product-oriented, consist of giving a text to be read and asking the students to answer comprehension questions. Little if anything is done about the strategies required to achieve comprehension.

It is the intention of this study to discover the strategies used by Indonesian readers in comprehending texts written in English. A method which has been used to study comprehension strategies is think aloud protocol analysis, but it is the contention of this study that think aloud analysis alone cannot provide in-depth insights into the processing of written text.

For think-alouds (or concurrent verbalizations), researchers instruct their subjects to verbalize directly only the thoughts entering their attention while performing the task (Ericsson & Simon, 1993 in Kormos, 1998:353). Kormos (1998:356) suggests that subjects should be explicitly instructed to verbalize all the thoughts that occur to them while performing the task. This way, subjects provide information while it is still available to them - that is, while it remains in the short-term memory.

Pressley and Afflerbach (1995:121-124) warn researchers using think-aloud protocols analysis of the following points. Firstly, the directions for the task must be clear and there must be sufficient practice time before the actual think aloud process commences. Secondly, the interactions between the subjects and the researcher during the reading of the text need be reported so that readers of the research report will be able to see whether the researcher's intervention in a certain situation is justified. Thirdly, researchers should include a reliability check in regard to reader's actions and their coding. In other words, triangulation is needed to insure that reporting on verbal reports is defensible.

Despite their potential limitations, Pressley and Afflerbach (1995:139-40) claim that reading protocols have encouraged learning about reading. However, more efforts should be made to develop more refined studies. It is the researcher's intention in this study to use multi-faceted methods of data collection, combining think-aloud tasks, retellings, a comprehension test, in-depth interviews based on the test answers, and casual observations of the execution of the tasks.

## THE STUDY

### The subjects

The subjects of this study in progress are fifteen student teachers of a state university in Indonesia. They are above average among their peers in that their average index of grades in reading and speaking are among the highest (3.4 and 3.2 respectively, while the average index of the peer group was 2.7 and 2.6, respectively, out of a scale of 0 to 4). In addition, while students may choose to complete their study by course work or by research, the subjects in this study were all enrolled as research students.

## The data collection procedures: Think-aloud tasks, retellings, a comprehension test in-depth interviews and casual observations

### Think-aloud tasks

Think-aloud tasks applied in this study followed the model suggested by Ericsson & Simon (1993) as refined by the suggestions given by Pressley & Afflerbach (1995), and reiterated by Kormos (1998). Each subject was explicitly instructed to verbalize all the thoughts that occurred to them while reading the text sentence by sentence. When the subject remained silent for more than thirty seconds, the researcher raised a KEEP TALKING sign to remind her/him to talk. This way, while the subject provided information available in the short-term memory, the frequency of reporting could be maximized.

To ensure that all the subjects understood fully what they were expected to do, the researcher asked them to rehearse, and when they achieved an appropriate level of performance, and they had no further questions about the procedure, the actual think-aloud task started. No model was given so as to avoid bias by imitating the model given and to insure the spontaneity of the response. In order that the subjects reported exactly what they were thinking while reading, they were free to talk into the tape in English, Indonesian, or English and Indonesian.

### Retellings, comprehension test, in-depth interviews and casual observations

After completing the first reading, the subjects were given a chance to look over the text material so that they could reassemble a complete, coherent version from the fragmentation that might have resulted from the continual interruption in the reading task. Then the researcher asked them to retell everything they remembered about the text. When the writer noticed an ambiguity in the retelling, he asked for clarification.

The use of retellings in this study is based on the constructivist view of reading (Anderson & Pearson, 1988; Lee, 1990; Smith, 1995) that a reader is an active participant in the reading process - in building a mental representation - by relating new, incoming

information in the text with old or previously acquired knowledge (Bernhart, 1991; Hood & Solomon, 1985; Ruddell, 1993). Thus, reading is actively combining what the reader knows with what is in the text (Maaroef, 1995:40) or making sense of the visual information based on non-visual information or the prior knowledge (Smith, 1995:7). This implies that meaning does not reside in texts. In Widdowson's (1979) words, text does not have meaning, but potential for meaning, which will vary from reader to reader, depending upon a multitude of factors, but crucially related to purpose and knowledge. In this view, meaning is actually created by the reader in interaction with the text. Widdowson (1984:91) claims that readers can choose to relate the text to their own scheme of things in whichever ways serves their purpose best. Therefore, Harri-Augstein & Thomas (1984:278) suggest an acceptance of the view that different readers will interpret the same text differently. While retellings serve this very purpose of giving readers every opportunity to express the meanings they construct, Smith (1988:218 in Dechant, 1991:11) observes that "just because meaning has to be brought by the reader to the text does not mean that any meaning will do". In response to this, a TOEFL model reading comprehension test was used. The test and the answer sheet were then used as a reference focus in the discussion session of the interview. (What is the answer to questions 1, 2, 3, etc.? How did you come to that answer? etc.) The purpose is to get deeper, broader and more comprehensive understanding of the processes going on in the reader's mind.

Modeled on a focused or semi-structured interview (Minichiello, 1995:65), essentially the in-depth interviews entail the researcher using the broad topics as a guide. The content of the interviews is focused on the issues that are central to the researcher's question, but the type of questioning and discussion allow for flexibility to involve an in-depth examination of the topics in question. The topics and the coverage of the questions were the same for every subject, but the researcher, to some extent, accommodated responses beyond the targeted information, so as to allow the interviews to flow smoothly. The discussion started with questions directly related to the text (e.g., how a subject came to the decision to choose the answer to a question, why she/he did not choose other options, why she/he was in doubt about an answer, etc.) to a more general questions (e.g., what problems were encountered in comprehending the text, how to solve the problems, what aided comprehension, what other problems were generally encountered in a reading test, etc.).

What matters in the discussion is how the subject came to a certain answer (*the process*), not her/his correct or incorrect answers (*the product*).

Throughout the execution of the tasks (think aloud, retelling and comprehension test) and the interviews, the researcher made casual observations and took notes on phenomena considered interesting or relevant to the study. This mode of observation was preferred for two reasons. Firstly, only three out of the fifteen participants were willing to participate in video recording. Secondly, the presence of another party (the cameraman with all recording activities) might distort the reading process. As a matter of fact the presence of the researcher alone, to some extent, interfered with the process.

An important point to remember in the whole data collection process is that to avoid the process of reactivity, the sequence of the tasks involving the researcher's intervention has to be from the one with the least to the one with the most intervention. The sequence of the tasks was as follows: (1) think-aloud task (least intervention: a reminder to keep talking), (2) retelling (more intervention: asking for clarification), (3) written comprehension test (no intervention), and (4) interview (most intervention).

**Methods of analysis**

Tapes of the think aloud tasks and interviews were transcribed, accompanied with notes from the observations, where appropriate. Portions of the responses in Indonesian were translated into English. Adapting Strauss & Corbin's (1990) coding model, the transcripts were put into a coding format under the columns: conditions, phenomena, strategies and consequences. The transcription, translation and coding of the first five subjects were verified by other raters familiar with the respective fields for the purpose of triangulation. The transcription was verified by a Masters student in TESOL, the translation by a NAATI-accredited university lecturer, and the coding by a Ph.D. student in TESOL. The inter-rater reliabilities were 98% for transcription, 87% for translation and 69% for coding. While input to transcription and translation was used for correction, discrepancies in coding were resolved through discussion.

## RESULTS

Fifteen subjects participated in the study but for the purpose of this paper only two strategy profiles of two subjects responding to the same text ("Dani" and "Mimi") are presented. The selection is based on the fact that these subjects achieved the highest and the lowest scores in the multiple-choice test (14 and 11, respectively, out of possible 17). They therefore represent two ends of the proficiency range represented by the participants. The first text they read is presented below. The symbol "**o**" indicates a point at which the subject was invited to think aloud.

### Text 1

In the beginning of the nineteenth century, the American educational system was desperately in need of reform **o** Private schools existed, but only for the very rich, and there were very few public schools because of the strong sentiment that children who would grow up to be laborers should not "waste" their time on education but should instead prepare themselves for their life's work **o** It was in the face of this public sentiment that educational reformers set about their task **o**

Horace Mann, probably the most famous of the reformers, felt that there was no excuse in a republic for any citizen to be uneducated **o** As Superintendent of Education in the state of Massachusetts from 1837 to 1848, he initiated various changes, which were soon matched in other school districts around the country **o** He extended the school year from five to six months and improved the quality of teachers by instituting teacher education and raising their salaries **o** Although these changes did not bring about a sudden improvement in the educational system, they at least increased public awareness as to the need for a further strengthening of the system **o**

Following the transcription, coding and analysis of the subjects' responses, a strategy profile for each reader was developed. The profiles of Dani and Mimi are presented in Figures 1 and 2 below.

| No | Strategies | Number of occurrences | | | | | | | | | X | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Skimming | # | | | | | | | | | 1 | 2.7 |
| 2 | Inferring | # | # | # | # | # | # | # | # | # | 9 | 23 |
| 3 | Making an association with knowledge/experience | # | # | # | # | # | # | | | | 6 | 15 |
| 4 | Paraphrasing | # | # | # | # | # | # | # | | | 7 | 18 |
| 5 | Evaluating content: questioning text content, agreeing; accepting a fact | # | # | # | # | # | # | # | # | | 8 | 21 |
| 6 | Referring | # | | | | | | | | | 1 | 2.7 |
| 7 | Giving illustration | # | # | # | # | | | | | | 4 | 10 |
| 8 | Summarizing | # | | | | | | | | | 1 | 2.7 |
| 9 | Predicting | # | | | | | | | | | 1 | 2.7 |
| 10 | Guessing meaning from context | # | | | | | | | | | 1 | 2.7 |
| | Total | | | | | | | | | | 39 | 100 |

Figure 1 The strategy profile of Dani

The figures in column 1 (No.) indicate the order in which strategies were used by the reader. The strategies used appear in column 2 (Strategies), each symbol "#" in column 3 (Number of occurrences) indicates a single occurrence of each strategy, the figures in column 4 represent the total number of occurrences (X), while the figures in column 5 indicate the percentage (%) of the occurrence(s) of the strategy in the same row compared with the total strategies.

One striking feature of the profile of Dani is the number of occurrences of four strategies – inferring, paraphrasing, making an association with knowledge or experience, and evaluating content (e.g., questioning text content, agreeing, and accepting a fact).

In reading the first text, despite the instruction to read it sentence by sentence, Dani started by skimming the whole text before focusing on the first sentence. The instruction was clear but he still asked whether he should start with the first sentence. After reading the sentence he inferred that the American education in the nineteenth century was not advanced yet.

> "Ya, setelah membaca, saya em ... melihat atau membayangkan bahwa pada awal abad 19 Amerika itu belum begitu maju ... dan di bidang pendidikan khususnya." (Yes, after reading, I see or imagine that at the beginning of the 19th century America was not so advanced, especially in the field of education.)

Then he made an association with his knowledge about the present educational condition in America:

> "Kemudian, di sisi lain sebetulnya saya malah membandingkan dengan keadaan Amerika yang sekarang ini dalam bidang pendidikan yang sudah maju." (On the other hand, I am comparing it with America today which is highly advanced in education.)

Only after that did he paraphrase the sentence:

> "Di sini tersirat bahwa pada awal abad 19 ... em ... sistem pendidikan di Amerika memerlukan reformasi." (It is implied here that at the beginning of the 19th century the educational system in America needed a reform.)

As soon as he read the second sentence he was surprised and questioned the text content:

> "Untuk kalimat ke-2 di sini saya agak heran. ... Kenapa sampai terjadi bahwa masyarakat Amerika pada saat itu ... melihat bahwa pendidikan tidak begitu penting bagi anak-anak, dan mereka menganjurkan anak-anak mereka itu em ... menyiapkan diri untuk bekerja." (For the second sentence, I am a bit surprised here. How was it possible that the American people viewed education as unimportant for children and suggested that children should prepare themselves for life work.)

Once again he associated this with his knowledge about present America when he commented, "Jadi ini bertentangan dengan ... em, ... kesan saya, rakyat Amerika sekarang ini." (So it is contrary to my impression about the American people today.)

However, he accepted the fact of the history without any pretension to anything different.

> "Sebenarnya saya tidak mengharapkan hal yang lain ... karena ini mungkin ... fakta yang memang ada. Jadi saya cuma me... membaca sejarah saja sebetulnya. Nggak apa." (I did not expect anything different as this was the fact. So I just read this history. Never mind.)

Upon reading the third sentence Dani referred to the second sentence and inferred what problems the reformers envisaged.

> "Kemudian kalimat ke-3. Yak, ... saya mendapat kesan bahwa ... para pelaku reformasi di sini itu benar-benar melihat bahwa ... pendidikan memang ... memang diperlukan. Jadi mereka mengantisipasi pendapat rakyat Amerika yang tersirat dalam kalimat ke-2 tadi." (Then the third sentence. Yes, I got the impression that the reformers here really saw that education was indeed needed. So they anticipated the American public opinion implied in the second sentence above.)

Evaluating the text content, Dani justified what the policy maker (Horace Mann) did.

> "Dan saya kira ini wajar karena orang yang ... terdidik atau ... yang melakukan 'policy' terhadap pendidikan itu memang harus melakukan hal-hal semacam ini. (And I think this is quite natural because educated people or policy makers in education should take such measures.)

Moving to the first sentence of the second paragraph, he showed his agreement to what Horace Mann did when he said, "... saya sangat senang dengan tindakan dari Horace Mann di sini bahwa dia melakukan tindakan yang nyata." (... I am very pleased that, here, Horace Mann took real measures).

This evaluation of text content (showing agreement) must have been preceded by Dani's inference on Horace Mann's views and efforts, because when the researcher asked for clarification, "Tindakan nyata, ya? Maksudnya?" (Real measures. What do you mean?) he said:

> "Ya. Jadi dia merasa kecewa sekali dan menganggap rakyat Amerika itu harus terdidik, tidak boleh tidak terdidik. Saya sangat senang dengan pendapat dia. (Yes. So he was very disappointed and demanded that the American people must be educated. They must not be uneducated. I like his opinion.)

Then, again, he made an association with, and reiterated his expectation of, the condition in Indonesia, followed by his agreement on Horace Mann's views.

> "Jadi saya juga membayangkan seharusnya di Indonesia juga begitu, saat membaca ini.Ya. Jadi dia merasa kecewa sekali dan menganggap rakyat Amerika itu harus terdidik, tidak boleh tidak terdidik. Saya sangat senang dengan pendapat dia." (On reading this sentence I also imagine that the condition in Indonesia should also be like this. Yes. So he (Horace Mann) was very disappointed and claimed that the American people must be educated. They must not be uneducated. I am pleased with his views.)

Only after making evaluation based on his inference about the first sentence of the second paragraph and that of the whole first paragraph did Dani pointed out his understanding of the sentence when he paraphrased it as follows: "Jadi dia merasa kecewa sekali dan menganggap rakyat Amerika harus terdidik." (So he was very disappointed and claimed that the Americans must be educated.)

And again he reflected his association with the condition in Indonesia when he said, "Jadi saya juga membayangkan seharusnya Indonesia juga begitu, saat membaca ini." (I also thought that Indonesia should be like this, when I read this.)

Dani's profile shows his preference for four particular strategies and his ability to go beyond the visual information provided in the text (inferring, evaluating and giving illustration). Despite the presence of a number of similarities this strategy profile contrasts with that of the other subject (Mimi) presented below.

| No | Strategies | Number of occurrences | | | | | | | | | | | | X | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Skimming | # | | | | | | | | | | | | 1 | 2.7 |
| 2 | Paraphrasing | # | # | # | # | # | # | # | | | | | | 7 | 19 |
| 3 | Inferring | # | # | # | # | # | # | # | # | | | | | 8 | 22 |
| 4 | Predicting(&anticipating content) | # | # | | | | | | | | | | | 2 | 5.4 |
| 5 | Monitoring comprehension: questioning meaning of words, phrases, sentences or author's message; vocalizing or subvocalizing; focusing attention; questioning text content | # | # | # | # | # | # | # | # | # | # | # | # | 12 | 33 |
| 6 | Summarizing | # | | | | | | | | | | | | 1 | 2.7 |
| 7 | Giving illustration | # | # | | | | | | | | | | | 2 | 5.4 |
| 8 | Referring | # | | | | | | | | | | | | 1 | 2.7 |
| 9 | Making an association with knowledge/experience | # | # | | | | | | | | | | | 2 | 5.4 |
| 10 | Guessing meaning from context | # | | | | | | | | | | | | 1 | 2.7 |
| | | | | | | | | | | | Total | | | 37 | 100 |

Figure 2 The strategy profile of Reader 2 (Mimi)

For the first think aloud task, the researcher had to remind Mimi twice to start reporting what she was thinking while reading the first sentence. Despite the instruction to read the text sentence by sentence, Mimi took time to skim the whole text before focusing on the first sentence. She responded in English by paraphrasing the sentence and making an inference.

> "Em, from this first sentence ... em ... I'm sure that ... the author here wants to ... state that the American educational system ... needs a reform. And that happened in the beginning of the nineteenth century, meaning that something wrong or something ... needs to be the better solution."

Mimi subvocalized the second sentence but glanced also at the next sentences while remaining silent. After the researcher reminded her for the third time to talk, she summarized and then paraphrased the first half of the sentence. Having problems comprehending the meaning of 'strong sentiment' she read the rest of the sentence aloud and commented on the phrase.

> "The author starts to talk about private schools in America. Em ... the special schools for the rich people. There were very few public schools because of the strong sentiment .... I need to underline the words 'strong sentiment' here.

Unable to solve the puzzle, Mimi moved on to, and subvocalized, the last sentence of the first paragraph and the first sentence of the second paragraph. She paraphrased, questioned and gave the latter sentence illustration but then met another problem of word use. She temporarily guessed the meaning based on contact and anticipated that she might be able to find the expected answer in the next sentences.

> "As if the author states that ... education here ... education here is not so important for the children because ... they just ... will be laborers. So they should not waste their time in education. And that something more important for them is preparing themselves for their life work. So maybe the ... the technical skills that they need in their life. But I'm not sure, em ... because I don't know exactly what the author means ... the word 'prepare' in the life work here. So I need to read longer ... or the next sentences, right?

Then she returned to the last sentence of the first paragraph, made an inference, monitored her comprehension, continued with the inference but confusion occurred over who considered education was unimportant.

> " And now the third sentence, "... education .....". Oh, em ... it tells us that ... that's the problem ... that's the ... the problem that public faces, ya. And that's the things that the reformers or the educational reformers em ... have to do or have to solve. Because here I read the word 'task' ... so what is to be the strong sentiment of the public is the educational reformers. ... Does it so? The main idea here is that the author wants to express or state the strong sentiment of the public about the educational system in America ... that the schools ... the private schools there are not so important for the children.

She meant to rephrase her inference but had a vocabulary problem formulating it when she said, "Or it means that the author is not so ... what is the opposite of '*pessimistic*'?"

Considering that the word required was not part of her comprehension problem, the researcher helped her with the word '*optimistic*' with which she completed the inference, "Oh, ya, he is not so optimistic with the result of educational system in America ... from this first paragraph."

Returning to first sentence of the second paragraph she monitored her comprehension when she questioned Mann's view repeatedly and referred to his statement. She associated the matter with her knowledge/experience and made an inference but her confusion remained.

> "Ini, agak heran ini." (It is strange.) "Em, the reformers, one of the reformers, um, Horace Mann, felt that there was no excuse in a republic for any citizen to be uneducated. I wonder why, because, um, I'm sure and I think that education is very important for everyone, especially for children, right? So I don't know why this man or this famous reformer, Horace Mann, felt that the education in America, ... in a republic, is not so important because he said that there was no excuse in ... there ... for any citizen to be uneducated. Jadi saya membayangkan em ... nggak ada masalah, nggak ada ... nggak perlu disalahkan kalau di negeri tersebut orang-orang itu uneducated, gitu. (So I imagine that, um, there was no problem, they should not blame anyone if people in the country were uneducated.)

Only after working on the multiple-choice test did she managed to get the correct meaning of the sentence.

> "Jadi kalimat begitu ternyata maksudnya sangat positif, gitu." (So this sentence proves to have a very positive sense.) "In a republic all citizens should be educated." ... "Gitu kan?" (Am I right?)

Comparing the strategy uses of the two readers results in Figure 3 appearing on the next page. Figure 3 shows that while both Dani and Mimi used skimming, inferring, paraphrasing, predicting, referring, summarizing and guessing strategies at approximately the same frequency levels, Dani made associations with general knowledge or experience and gave illustrations more often than Mimi. A complete contrast happened in the use of evaluation and monitoring strategies. While Dani made evaluation eight times, Mimi did not make any at all. In contrast, while Dani's monitoring strategy did not appear in the protocol, Mimi was observed monitoring her comprehension eleven times.

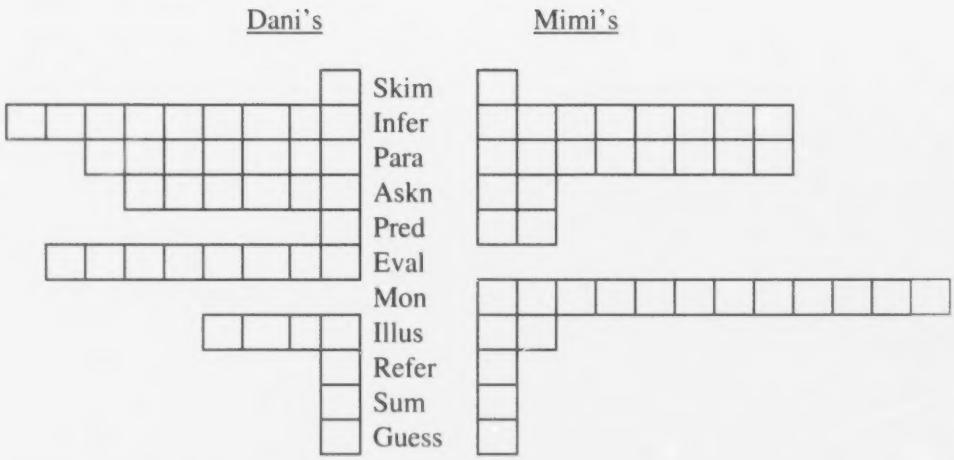


Figure 3 The comparison of Dani's and Mimi's strategy uses

**DISCUSSION**

As cited earlier, while both Dani and Mimi were considered above average readers among their peers, the strategies they used show a number of similarities but contrast in type and number of occurrences. Despite the instruction to read the text sentence by sentence, both Dani and Mimi skimmed the whole text or other sections of the text before focusing on the first sentence and started reporting at the beginning of the think aloud process. This indicates that the instruction to read the text sentence by sentence did not prevent the reader completely from following the natural process of reading when the text was presented in full. On the other hand, a large dot placed at the end of each sentence made the reader focus their attention on the sentence and report what they were thinking while reading it.

Both Dani and Mimi used a high proportion of the paraphrasing (18% and 20%, respectively) and inferring strategies (23% and 23%, respectively). In order to come to these paraphrases and inferences Mimi went through the apparent monitoring processes 11 times (31% of the total strategy occurrences). The researcher believes that Dani also monitored his comprehension but the process must have been automatic and did not appear in the think aloud reports. In contrast, not only did Dani comprehend the text, but he also went beyond the visual information provided in the text. He evaluated the text content 8 times (21% of the total strategy occurrences) by questioning text content,

showing agreement or accepting a fact, while Mimi did not do this at all. Besides, to demonstrate his understanding of the text Dani gave illustrations 4 times (10% of the strategy occurrences) in addition to some of his paraphrases and inferences. Mimi also gave illustrations 2 times (6% of the strategy occurrences) but that was only half of Dani's. Both Dani and Mimi made an association of their knowledge and experience appropriately but while Dani did it 6 times (15%), Mimi did it 2 times (6% of the strategy occurrences).

In addition, while Dani did not have any problem with sentence construction, Mimi misinterpreted a clause containing double negatives "... there was no excuse in a republic for any citizen to be uneducated". Therefore, she questioned Horace Mann's stance as an educational reformer because she interpreted the clause as "no one should be blamed if the people were not educated". Thus both Dani and Mimi questioned the text content but for a different reason. Mimi questioned the text content as a result of misunderstanding a sentence, while Dani did so because he understood the sentence perfectly, but compared the condition reported in the text with that of America today. Therefore, while Dani's questioning text content belongs his evaluating strategy, Mimi's questioning text content is part of her monitoring strategy.

Aaron & Baker (1991:115) claim that comprehension is facilitated when a reader is able to summarize and paraphrase the information in the text, while Block (1986) suggests that one of the characteristics of good readers is the ability to go beyond the information given in the text (non-visual information). While Dani's and Mimi's paraphrasing and inferring strategies occurred frequently, Dani, where appropriate, provided illustration, evaluated text content and made an association with knowledge and experience more often than Mimi did. Despite the problems Mimi encountered, as indicated by her frequent use of monitoring strategies, she managed to revise her interpretation in the retellings, the test and the subsequent discussion. As Block (1992:337) claims that monitoring is a part of good reading and Wongbiasaj & Chaikitmongkol (1995:114) classify strategy adjustment as a high-level metacognitive strategy, Mimi's problems and her ability to monitor the problems followed by the correction of interpretation show characteristics of a good reader. However, Dani and Mimi still share some characteristics of poor readers as some

of their strategies (e.g., skimming and using context clues) belong to low-level cognitive strategies (Wongbiasaj & Chaikitmongkol, 1995:113).

**What contributions did the complementary methods (retellings, comprehension test and interviews, and observations) make?**

Firstly, for both Dani and Mimi, without observation, their skimming strategies would not have been detected from the think aloud protocols. Secondly, from the retellings, Dani's doubt about the meaning of 'superintendent' and the missing details (e.g., the year and the name of the state) were confirmed. While these aspects did not seem to receive attention in the think aloud process, they were not mentioned in the retellings either. As for Mimi, while her misunderstanding of the double negative construction was confirmed, other strategies such as giving further illustration and making evaluation were revealed. Thirdly, the discussion of the comprehension test answers in the interviews confirmed the reader's comprehension in the think aloud task. In addition, it also provides cues about what caused miscomprehension, e.g., Mimi's misunderstanding of the word 'sentiment' which confused her in the think aloud task, as revealed in the interview. She mistook this word 'sentiment' which means 'opinion' for 'sentimen' in Indonesian which means 'dislike' or 'ill-feeling'. This word also posed a problem for Dani, but from the context he made an accurate guess that it was 'pendapat' (opinion), thus revealing his use of the guessing strategy based on context. Without the interviews, Mimi's confusion could not have been explained, while Dani's use of the guessing strategy would not have been detected. Hence these contributions justify the argument for the use of the multi methods in this study. Employing the think aloud protocols alone might not have been able to reveal some of the strategies and phenomena reported in this study. Other than strategies and phenomena reported, the in-depth interviews also revealed problems the subjects generally encountered in reading texts in reading tests, textbooks and reference books, and newspapers as well as strategies or tactics to solve the problems. Details of these problems and their solution will be reported in the main thesis upon the completion of the whole study.

**Research implication**

While only reading texts in a reading test was investigated through think aloud tasks, retellings and interviews in this study, the application of these multi methods in future

research may lead to better and more comprehensive insights into the process of comprehending other forms of written language.

## CONCLUSION

The analysis of the subjects' protocols of the think-aloud tasks, the retellings, the comprehension test, the in-depth interviews and the casual observations has revealed that despite the cautious selection of the subjects, there are still noticeable gaps among the subjects in the degree of comprehension and the strategies used. This is apparent in the differences between Dani's and Mimi's performances. The analysis has also shown that the subjects of this study share characteristics of both poor and good native readers. The contributions of the retellings, the comprehension test the interviews and the observations outlined above indicate that the application of the multi methods in this study has achieved its goal.

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